

L3 ANSWER 46 OF 65 CA COPYRIGHT 2001 ACS
AN 104:73834 CA
TI **Cellular concrete**
IN Stoklosa, Jerzy; Jatymowicz, Hanna; Siejko, Janina; Szczepanski, Zbyszek
Wojciech; Bekierz, Gerard; Marcinski, Marek
PA Centralny Osrodek Badawczo-Rozwojowy Przemyslu Betonow "Cebet", Pol.;
Instytut Ciezkiej Syntezy Organicznej "Blachownia"
SO Pol., 2 pp.
CODEN: POXXA7
DT Patent
LA Polish
IC C04B021-00
CC 58-2 (Cement, Concrete, and Related Building Materials)
FAN. CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	PL 126204	B1	19830730	PL 1980-226866	19800922

AB **Cellular concrete** is prep'd. from a mixt. of sand or
fly ash as a filler, Al powder, a binder, and
water. The binder is a mixt. of neutralized waste carboxylic
acids (e.g. waste from oxidn. of benzene to cyclohexanol, or neutralized
mono- and polycarboxylic acids with addn. of 10% mono- and polyglycols).
Thus, 1 m³ **cellular concrete** was prep'd. by mixing
water 350 dm³, a mixt. of neutralized waste carboxylic acids 0.6
dm³, **fly ash** 450 kg, binder (mixt. of lime, cement,
gypsum, and ash) 265 kg, and suspension of Al powder and mixt. of
neutralized waste carboxylic acids 0.3 dm³. After stirring 2 min., the
mixt. was poured.
ST **cellular concrete** manuf waste acid
IT Carboxylic acids, compounds

L3 ANSWER 45 OF 65 CA COPYRIGHT 2001 ACS

AN 105:11046 CA

TI Lightweight mortar

IN Kikuchi, Masatsune; Matsui, Satoru

PA Onoda Cement Co., Ltd., Japan

SO Jpn. Kokai Tokyo Koho, 4 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C04B038-08

ICS C04B028-00

CC 58-3 (Cement, Concrete, and Related Building Materials)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 61031371	A2	19860213	JP 1984-148550	19840719
	JP 01046478	B4	19891009		

AB The lightwt. mortar is composed of lightwt. aggregates 15-25, portland cement 82-72, an accelerator 3-7 wt.%, and a small amt. of thickener and a retarder. The accelerator preferably consists of calcined alunite, slaked lime, and alkali metal carbonate. The lightwt. mortar is useful for manufg. lightwt. structures without autoclave curing or steam curing, and fixing lightwt. **cellular concrete**. Thus, a mixt. consisting of ordinary portland cement 76, an accelerator (composed of calcined alunite 75, soda ash 20, and slaked lime 5 wt.%) 4, **perlite** A (sp. gr. 0.24) 11.5, **perlite** B (sp. gr. 0.21) 8.5, Metolose 90SH8000 0.1, and sodium citrate 0.1 part was kneaded with water (water/cement wt. ratio of 0.65), poured into a frame to show flow value 225 mm, hardening initiation period 15 min, no contraction, compressive strength 72.5 kg/cm² 1 day after molding, and dry sp. gr. 0.85.

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L3 ANSWER 44 OF 65 CA COPYRIGHT 2001 ACS
AN 105:65360 CA
TI **Cellular concrete mix**
IN Fedynin, N. I.; Manzhelevskaya, N. V.; Ponomarev, O. N.; Suprun, I. P.;
Khor'kova, N. I.
PA Ural Scientific-Research and Design Institute for Building Materials,
Novokuznetsk, USSR; "Sverdlovskstroimaterialy" Industrial Enterprises
SO U.S.S.R.
From: Otkrytiya, Izobret. 1986, (11), 127-8.
CODEN: URXXAF
DT Patent
LA Russian
IC ICM C04B038-02
CC 58-2 (Cement, Concrete, and Related Building Materials)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
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PI	SU 1219575	A1	19860323	SU 1984-3814205	19841003	
AB	The concrete mix for accelerated pore formation and increased concrete strength after autoclave treatment contains ground chalk 1.5-4, water glass 0.45-0.6, CaCl ₂ 0.2-0.4, and butadiene-styrene latex as emulsion polymer 3-5 in addn. to <u>portland cement</u> 16-25, <u>lime</u> 6-10, <u>coal ash</u> 16-25, Al powder 0.18-0.36, alkyl sulfate 0.18-0.28, carboxymethylcellulose 0.17-0.25 wt.%, and balance water. The ingredients without the Al and CaCl ₂ are first mixed for 210-270 s and then the Al powder and CaCl ₂ are added and mixing continued for 20-30 s.					
ST	cellular concrete accelerated pore formation					
IT	Concrete (cellular, mix for, for accelerated pore formation and increased strength)					

L3 ANSWER 39 OF 65 CA COPYRIGHT 2001 ACS
AN 108:117861 CA
TI Composition for **cellular concrete** with controlled
density
IN Royer, Fernand
PA Fr.
SO Fr. Demande, 4 pp.
CODEN: FRXXBL
DT Patent
LA French
IC ICM C04B038-02
ICI C04B020-02, C04B020-06
CC 58-2 (Cement, Concrete, and Related Building Materials)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
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PI	FR 2599360	A1	19871204	FR 1986-7560	19860527	
AB	The title compn. comprises <u>cement</u> 100, <u>foaming agent</u> conc. 0.13, <u>water</u> 55, and expanded <u>clay granules</u> 1 to req. 92 wt. parts to control the d. of the concrete obtained. The compn. may also contain 2 wt. parts setting agent, e.g., CaCO ₃ and 0.5 wt. parts metal oxide coloring agent. <u>Polypropene fibers</u> may be added at 0.165 wt. parts for reinforcement.					
ST	clay granule density control lightwt concrete; calcium carbonate setting agent concrete; metal oxide colorant lightwt concrete; polypropene fiber reinforcement lightwt concrete					
IT	Clays, uses and miscellaneous RL: USES (Uses) (expanded, in lightwt. concrete fo					

L3 ANSWER 31 OF 65 CA COPYRIGHT 2001 ACS
AN 113:177258 CA
TI Mixture for producing **cellular concrete**
IN Volzhenskii, A. V.; Kokovin, O. A.; Pavlova, T. N.; Suprunyuk, A. P.;
Baikov, B. A.; Borisova, E. A.
PA All-Union Scientific-Research Institute of Construction Materials and
Products, USSR
SO U.S.S.R.
From: Otkrytiya, Izobret. 1990, (26), 88.
CODEN: URXXAF
DT Patent
LA Russian
IC ICM C04B038-02
CC 58-2 (Cement, Concrete, and Related Building Materials)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	SU 1578113	A1	19900715	SU 1988-4469837	19880801
AB	Burnt diatomite is used to increase freeze resistance and accelerate the strength gaining of the title concrete. The total compns. comprise lime 8.6-15.8, cement 16-15.1, burnt diatomite 31.4-41.7, surfactant 0.0010-0.0015 wt% and water.				
ST	burnt diatomite cellular concrete				
IT	Kieselguhr				

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L3 ANSWER 30 OF 65 CA COPYRIGHT 2001 ACS
AN 113:217045 CA
TI Compositions for lightweight concrete
IN Fedynin, N. I.
PA Ural Scientific-Research and Design Institute for Building Materials,
Novokuznetsk, USSR
SO U.S.S.R.
From: Otkrytiya, Izobret. 1990, (30), 119.
CODEN: URXXAF
DT Patent
LA Russian
IC ICM C04B038-02
CC 58-2 (Cement, Concrete, and Related Building Materials)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	SU 1585309	A1	19900815	SU 1988-4456075	19880707
AB	To accelerate the formation of pores, and initial setting, and to increase the strength of the concrete, NH ₄ Cl, and, addnl., fly ash from ferrosilicon manuf. are used. The total compns. comprise <u>portland cement</u> 12-22, <u>coal ashes</u> 25-29, <u>blast-furnace slags</u> 22-30, lime 4-8, Na alkylsulfate 0.06-0.25, NH ₄ Cl 0.3-0.8Al powder 0.002-0.004, fly ash 2-6 wt.%, and water .				
ST	ammonium chloride lightwt concrete; ferrosilicon fly ash lightwt concrete				
IT	Lime (chemical) RL: USES (Uses) (powd., compns. contg. ammonium chloride and fly ash and, in rapid-setting cellular concrete manuf.)				
IT	Concrete				

L3 ANSWER 19 OF 65 CA COPYRIGHT 2001 ACS
AN 119:102095 CA
TI Mixes for manufacture of **cellular concrete**
IN Fedynin, Nikolaj I.; Shadrina, Elena A.
PA Novokuznetskoe otdel uralskogo ni pi stroitelnykh materialov, USSR
SO U.S.S.R.
From: Izobreteniya 1992, (23), 96.
CODEN: URXXAF
DT Patent
LA Russian
IC ICM C04B038-02
CC 58-2 (Cement, Concrete, and Related Building Materials)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	SU 1742271	A1	19920623	SU 1989-4776182	19891229
AB	Formation of the cellular structure is accelerated and vol. stability of the resulting material is improved when the mixes comprise polyethylene glycol monoalkylphenyl ethers 0.07-0.15, and lignosulfonates 0.04-0.1, in addn. to <u>portland cement</u> 18-30, coal <u>fly ash</u> 40-53, lime 2-5 wt.%, and <u>balance water</u> .				
ST	polyethylene glycol monoalkylphenyl ether cellular concrete				
IT	Lime (chemical) RL: USES (Uses)				

L3 ANSWER 9 OF 65 CA COPYRIGHT 2001 ACS
AN 131:188735 CA
TI **Cellular concrete blocks and their manufacture**
IN Okami, Takeaki; Fujii, Satoru
PA Taiheiyo Cement Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DT Patent
LA -Japanese
IC ICM C04B028-02
ICS C04B038-00; C04B028-02; C04B007-28; C04B018-14
CC 58-2 (Cement, Concrete, and Related Building Materials)
Section cross-reference(s): 60
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
	-----	-----	-----	-----	-----	
PI	JP 11236260	A2	19990831	JP 1998-60425	19980225	
AB	The concrete blocks are manufd. by kneading and hardening mixts. of 10-35 wt. parts of blast furnace slag fine powder, 100 wt. parts of hydraulic compns. composed of gypsum and incinerator ash-fired substances, and <u>20-35</u> wt. parts of water . The fired substances are prep'd. by firing of municipal incineration ash and/or sewage sludge incineration ash, and contain 10-40 wt.% of (C11A7CaC12, C11A7CaF2, and/or C3A), and C2S and/or C3S. The concrete blocks have high and durable strength.					
ST	concrete block incinerator ash fired cement; recycling incineration ash firing concrete cement; blast furnace slag cellular concrete block					
IT	Slags					

L3 ANSWER 8 OF 65 CA COPYRIGHT 2001 ACS
AN 133:33658 CA
TI Manufacture of **fly ash-based cellular concrete**
IN Weiss, Wilhelm; Stanila, Alexandru; Alecu, Ioan; Sandu, Ion
PA Rom.
SO Rom., 3 pp.
CODEN: RUXXA3
DT Patent
LA Romanian
IC ICM C04B026-22
ICS C04B018-08; C04B018-26
CC 58-2 (Cement, Concrete, and Related Building Materials)
Section cross-reference(s): 60
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	RO 112843	B1	19980130	RO 1991-147515	19910508

AB **Fly ash** 45-60, **water** (pretreated in 1.5-2.5 A/m electromagnetic field) 20-40, portland cement 15, and Ca(OH)₂ 4.5-5 wt. parts are mixed to obtain a homogeneous mass, followed by admixing an aq. aluminum powder suspension (**water**/aluminum ratio 1:0.08), molding, and curing at 1. to req. 60. degree. for 4 h to obtain **cellular concrete** products. The process eliminates use of sand and autoclave curing, and utilizes **fly ash** as concrete mix component.

ST **cellular concrete fly ash cement**
calcium hydroxide aluminum powder

IT Concrete
(cellular, molded; manuf. of **fly ash-b**

L3 ANSWER 9 OF 65 CA COPYRIGHT 2001 ACS

AN 131:188735 CA

TI **Cellular concrete** blocks and their manufacture

IN Okami, Takeaki; Fujii, Satoru

PA Taiheiyo Cement Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C04B028-02

ICS C04B038-00; C04B028-02; C04B007-28; C04B018-14

CC 58-2 (Cement, Concrete, and Related Building Materials)

Section cross-reference(s): 60

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11236260	A2	19990831	JP 1998-60425	19980225
AB	The concrete blocks are manufd. by kneading and hardening mixts. of 10-35 wt. parts of blast furnace slag fine powder, 100 wt. parts of hydraulic compns. composed of gypsum and incinerator ash-fired substances, and 20-35 wt. parts of water . The fired substances are prep'd. by firing of municipal incineration ash and/or sewage sludge incineration ash, and contain 10-40 wt.% of (C11A7CaCl ₂ , C11A7CaF ₂ , and/or C3A), and C2S and/or C3S. The concrete blocks have high and durable strength.				
ST	concrete block incinerator ash fired cement; recycling incineration ash firing concrete cement; blast furnace slag cellular concrete block				
IT	Slags				

L3 ANSWER 8 OF 65 CA COPYRIGHT 2001 ACS
AN 133:33658 CA
TI Manufacture of **fly ash-based cellular concrete**
IN Weiss, Wilhelm; Stanila, Alexandru; Alecu, Ioan; Sandu, Ion
PA Rom.
SO Rom., 3 pp.
CODEN: RUXXA3
DT Patent
LA Romanian
IC ICM C04B026-22
ICS C04B018-08; C04B018-26
CC 58-2 (Cement, Concrete, and Related Building Materials)
Section cross-reference(s): 60

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI RO 112843 B1 19980130 RO 1991-147515 19910508

AB **Fly ash 45-60, water** (pretreated in 1.5-2.5 A/m electromagnetic field) 20-40, portland cement 15, and Ca(OH)₂ 4.5-5 wt. parts are mixed to obtain a homogeneous mass, followed by admixing an aq. aluminum powder suspension (water/aluminum ratio 1:0.08), molding, and curing at 1 to 60 degree. for 4 h to obtain **cellular concrete** products. The process eliminates use of sand and autoclave curing, and utilizes **fly ash** as concrete mix component.

ST **cellular concrete fly ash cement**
calcium hydroxide aluminum powder

IT Concrete
(cellular, molded; manuf. of **fly ash-b**